- 2. (Amended) A method according to claim 1, wherein the non-optical sensor includes a sensor having an active surface that is sensitive to variations in temperature.
- 3. (Amended) A method according to claim 1, wherein the non-optical sensor includes a sensor having an active surface sensitive to an electrical property measured by measuring one of capacitance and conductance.
- 4. (Amended) A method according to claim 1, wherein the non-optical sensor includes a sensor having an active surface that is sensitive to variations in pressure.
- 5. (Amended) A method according to claim 2, wherein the active surface is defined by a plurality of individual detection cells disposed in at least one row.
- 7. (Amended) A method according to claim 1, wherein the acquisition apparatus is arranged to acquire an image of a zone that is large enough to be statistically representative, including an area lying in a range of from about 0.2 cm<sup>2</sup> to about 2 cm<sup>2</sup>.
- 8. (Amended) A method according to claim 1, wherein the image is acquired statically, without moving the non-optical sensor relative to the zone under study during image acquisition.
- 9. (Amended) A method according to claim 1, wherein the image is acquired dynamically, with relative movement between the non-optical sensor and the zone under study during image acquisition.
- 10. (Amended) A method according to claim 9, wherein the non-optical sensor includes an active surface in the form of a strip of individual detection cells.
- 11. (Amended) A method according to claim 1, wherein the image is acquired without the non-optical sensor coming into contact with the zone under study.
- 12. (Amended) A method according to claim 1, wherein the image is acquired with the non-optical sensor in contact with the zone under study.



- 13. (Amended) A method according to claim 12, including measuring pressure of contact between the non-optical sensor and the zone under study during image acquisition.
- 14. (Amended) A method according to claim 12, wherein the image is acquired at a substantially constant contact pressure.
- 15. (Amended) A method according to claim 1, wherein the acquired image is a three dimensional image of the zone under study.
- 16. (Amended) A method according to claim 1, wherein the acquired image is a two dimensional image of the zone under study.
- 17. (Amended) A method according to claim 1, wherein the non-optical sensor has a spatial resolution lying in a range of from 10  $\mu$ m to 100  $\mu$ m.
- 18. (Amended) A method according to claim 1, further including processing the image in order to determine characteristic parameters of the zone under study.
- 19. (Amended) A method according to claim 18, wherein the processing provides information concerning a surface density of skin lines.
- 20. (Amended) A method according to claim 18, wherein the processing provides information concerning an anisotrophy coefficient of skin line density.
- 22. (Amended) A method according to claim 18, further including utilizing a result of the processing to establish a diagnosis.
- 23. (Amended) A method according to claim 18, further including utilizing a result of the processing to recommend a care treatment.
- 24. (Amended) A method according to claim 18, wherein the processing is performed remotely by transmitting digital data over a network.
- 25. (Amended) A method according to claim 1, further including storing at least one of a plurality of the images and data associated with a plurality of the images on a recording



medium, and wherein the plurality of images are taken at different times.

- 26. (Amended) A method according to claim 1, further including simultaneously displaying at least one of a plurality of the images and data associated with a plurality of the images, and wherein the plurality of images are taken at different times to enable a person to evaluate effects of treatment or the need for treatment.
- 27. (Amended) A method according to claim 1, wherein the zone under study includes one of a region of the forearm and a region of the face.
  - 28. (Amended) An assembly comprising:

image acquisition apparatus for acquiring an image of at least one of a nondermatoglyphic zone of the skin and a zone of the hair in order to determine certain parameters of said zone and/or perform a diagnosis, said acquisition apparatus including a portable non-optical sensor arranged to be brought into contact with at least one of a nondermatoglyphic zone of the skin and a zone of the hair; and

a computer tool enabling information to be extracted from signals delivered by the non-optical sensor concerning microrelief of said zone, said information relating to a state of one of the skin and the hair.

- 29. (Amended) A computer system for use with images acquired to determine at least one of certain parameters of a zone and a diagnosis of a zone, wherein the zone is at least one of a non-dermatoglyphic zone of the skin and a zone of the hair, the computer system comprising:
- a) means for receiving images in digital form corresponding to at least one of a nondermatoglyphic zone of the skin and a zone of the hair;
- b) means for processing said images in order to determine data concerning at least one of surface density of lines, surface density of pores, size of pores, and an anisotrophy



coefficient of line density; and

- c) means for establishing a diagnosis on the basis of the data resulting from the means for processing.
- 30. (Amended) A computer system according to claim 29, the system being arranged to send a message to a person who has made a connection thereto and transmitted an image of the skin, and message information informing the person about the result of the diagnosis.
- 31. (Amended) A method for recommending cosmetic treatment, the method comprising:
- a) acquiring an image of at least one of a non-dermatoglyphic zone of the skin and a zone of the hair utilizing a non-optical sensor;
  - b) processing said image in a computer system so as to obtain a diagnosis; and
  - c) recommending care treatment in response to said diagnosis.
- 32. (Amended) A method according to claim 31, wherein the image is processed at a site at which said image is acquired.
- 33. (Amended) A method according to claim 31, wherein the image is process at a processing location remote from a site at which said image is acquired.
- 34. (Amended) A method according to claim 33, wherein the image is sent to the processing location over the Internet.
- 35. (Amended) A method according to claim 31, including the step of storing for comparison at least one of: (a) images that are acquired successively in times and (b) data resulting from images acquired successively in time.
- 36. (Amended) A method of acquiring an image comprising:

  providing at least one non-optical sensor, said non-optical sensor being <u>a</u> non-thermal sensor; and

utilizing said at least one non-optical sensor to acquire an image of one of a non-dermatoglyphic zone of skin and a zone of hair;

utilizing said image to determine at least one of a parameter of said zone and a diagnosis of said zone.

37. (Amended) A method of acquiring an image comprising:

providing at least one non-optical sensor, said non-optical sensor having resolution enabling relief to be detected that is smaller than or equal to  $100~\mu m$ ;

utilizing said at least one non-optical sensor to acquire an image of one of a non-dermatoglyphic zone of skin and a zone of hair; and

utilizing said image to determine at least one of a parameter of said zone and a diagnosis of said zone.

## Please add new claims 38-67 as follows:

- --38. A method according to claim 5, wherein the active surface includes a plurality of juxtaposed rows of individual detection cells.
- 39. A method according to claim 7, wherein said area is in a range of from about 0.25 cm<sup>2</sup> to about 1 cm<sup>2</sup>.
- 40. A method according to claim 17, wherein the non-optical sensor has a spatial resolution in a range of from about 25 to 75  $\mu m$ .
- $^{-}$  41. A method according to claim 17, wherein the non-optical sensor has a spatial resolution of approximately 50  $\mu$ m.
- 42. A method according to claim 24, wherein the digital data is transmitted over the Internet.
  - 43. A method as recited in claim 1, further including utilizing said image to



determine at least one of a parameter of said zone and a diagnosis of said zone.

- 44. A method according to claim 1, wherein the step of utilizing said image includes determining a density of lines in at least one direction of the skin.
- 45. A method according to claim 1, wherein the image is an image of a zone of an arm, and wherein the step of utilizing said image includes determining orientations of collagen bundles relative to an axis of the arm.
- 46. A method as recited in claim 1, further including utilizing said image to determine information concerning aging of the skin, and wherein information concerning aging is determined by analyzing lines in the skin in at least two different directions.
- 47. The assembly according to claim 28, wherein said non-optical sensor includes an active surface that is sensitive to one of an electrical property, temperature and pressure.
- 48. The assembly according to claim 28, wherein the non-optical sensor includes an active surface that is sensitive to an electrical property.
- 49. The assembly according to claim 48, wherein the electrical property is capacitance.
- 50. The assembly according to claim 28, wherein the non-optical sensor includes a plurality of juxtaposed rows of detection cells that are sensitive to capacitance.
- 51. A computer system according to claim 29, wherein said means for establishing a diagnosis includes stored comparison data for comparing with the data resulting from the means for processing.
- 52. A computer system according to claim 29, further including means for selecting a care product from a plurality of care products in response to said means for establishing a diagnosis.
  - 53. A computer system according to claim 30, wherein said message includes a



recommendation of a care product.

- 54. A method as recited in claim 36, further including utilizing said image to determine at least one of a parameter of said zone and a diagnosis of said zone.
  - 55. An image assembly comprising:

at least one image sensor for acquiring an image of at least one of a nondermatoglyphic zone of the skin and a zone of the hair, said image sensor having an active surface that is sensitive to capacitance; and

a computer tool which receives signals from said at least one image sensor.

- 56. An image assembly according to claim 55, wherein the at least one image sensor includes a plurality of juxtaposed rows of individual capacitive detection cells.
  - 57. A method of acquiring an image comprising:

providing at least one non-optical sensor for obtaining image information concerning a zone of skin; and

utilizing said at least one non-optical sensor to acquire an image of one of a non-dermatoglyphic zone of skin; and

utilizing said image to determine at least one of: (a) a density of lines on the skin in at least one direction, (b) information concerning aging of the skin, and (c) orientations of collagen bundles in a region of skin on the arm relative to an axis of the arm.

- 58. A method according to claim 57, including utilizing said image to determine a density of lines on the skin in at least a first direction.
- 59. A method according to claim 57, including utilizing said image to obtain information concerning aging of the skin.
- 60. A method according to claim 57, wherein the image is an image of a zone of an arm, the method including utilizing the image to determine orientations of collagen bundles



in the zone relative to an axis of the arm.

- 61. A method according to claim 57, wherein the non-optical sensor includes an active surface that is sensitive to capacitance.
- 62. A method according to claim 57, wherein the non-optical sensor includes a plurality of capacitive detection cells.
- 63. A method according to claim 57, wherein the plurality of capacitive detection cells are arranged in juxtaposed rows.
- 64. A method according to claim 57, including utilizing said image to determine information concerning aging of the skin, and wherein information concerning aging of the skin is determined by analyzing lines in the skin in at least two different directions.
- 65. A method according to claim 64, wherein the analyzing of lines includes determining a ratio of a density of lines in a first direction to a density of lines in a second direction, and wherein said first direction is substantially perpendicular to said second direction.

## 66. An assembly comprising:

image acquisition apparatus for acquiring an image of a non-dermatoglyphic zone of the skin in order to determine certain parameters of said zone and/or perform a diagnosis, said acquisition apparatus including a portable non-optical sensor arranged to be brought into contact with said non-dermatoglyphic zone of the skin; and

a computer tool enabling information to be extracted from signals delivered by the non-optical sensor concerning microrelief of said zone, said information relating to a state of the skin.

67. A method of acquiring an image comprising:

providing at least one non-optical sensor, said non-optical sensor having resolution

